



Juice-Can for Portable Power!

Written By: Daniel Isdell



TOOLS:

- [Utility knife \(1\)](#)



PARTS:

- [5-gallon square kitty litter bucket \(1\)](#)
- [12-volt lawn tractor battery # U1 \(1\)](#)
- [400-watt inverter \(1\)](#)
- [Lighter socket adapter with alligator clips \(1\)](#)
- [Lighter Plug adapter \(1\)](#)

SUMMARY

Have you ever wanted to plug in one of your electronic gizmos in a canyon? Ever wanted to plug in a practice amplifier for your Stratocaster in a park? Sure, portable generators are great, but they are also heavy, loud, and smelly. This simple solution to the portable power problem is easy to assemble and guaranteed to impress your friends when you show up with your accordion and an amplifier and your very own power supply.

Step 1 — Juice-Can for Portable Power!



- Let's start with a nice clean square 5-gallon bucket. I used a kitty litter bucket. If you don't have a cat, then I recommend that you visit a local shelter and adopt a nice kitty. Then you will have a good excuse to buy kitty litter in square 5-gallon buckets.
- I used my utility knife to cut a square hole in the center of the bucket lid. I made the hole about one and a quarter inches square (1-1/4"). The hole needs to be large enough for the ends of your extension cord. I also made a hole in each corner to allow for ventilation.

Step 2



- Place a small lawn/garden tractor battery into the bucket and connect a 12-volt cigarette lighter socket to the battery. These small batteries are commonly available at most auto supply stores for about \$25. The lighter socket is optional, but it allows me to recharge my Juice-Can from a "lighter-to-lighter" jumper cable and it also allows me to plug in other 12 volt gadgets.

Step 3



- If you have chosen to leave out the optional 12-volt lighter socket then you can skip this step. The rest of us need to cut the supply leads for the inverter to a more manageable length.
- I cut mine to one foot long. You can cut this wire with the utility knife against a block of scrap wood or you can get fancy and use a pair of wire cutters. Use the utility knife to carefully cut the insulation back about three-quarters of an inch. Then attach the lighter adapter plug. Of course you can use any 12-volt lighter plug, but most of them are not designed for large wires like these. The plug that I used is from Radio Shack (P.N. 270-036) and in addition to being well constructed, it has finger tighten-able terminals that can take these large wires.

Step 4



- Connect the wires to the inverter (be sure to pay attention to polarity!). Plug the inverter's lighter plug into the battery's socket and hit the power button! You now have portable power! Place the inverter on top of the battery. Roll up your extension cord and slide it in beside the battery. Plug the extension cord into the inverter and pull the female end through hole in the top of the bucket. Close up the bucket and stand back and admire your own personal portable power station!

Step 5



- OK, so what are you waiting for? Go impress your friends with your near-super-human ability to use appliances in remote locations. Take your best girl to watch a sunset, then show her favorite movie on a cliff wall with your LCD projector and your amazing Juice-Can. (Try it first to be sure the battery will last. You won't be such a hero if you can't play the romantic ending.)
- Don't expect a super long time from this little guy, it is a minimal version. Things that use a lot of wattage will drain this quick, but I can use my laptop all day or my practice amplifier for a couple hours. I will work on a heavy duty version, but for more power you can just add a bigger battery and a larger inverter.

This document was last generated on 2012-11-01 04:10:37 AM.